architectural taste than the present. Giving you my best wishes for the success of THE BUILDER, which I am happy to state is becoming more and more valuable, allow me to subscribe myself,

CANDIDUS.

ON MEASURING BRICKWORK.

SIR,—In answer to your correspondent "C.H.C." I think the less number of figures made use of in reducing this work (so that it is correct) is the best way. Now the shortest and best way to reduce cubical brickwork to the standard rod is, I think, as follows. Suppose I have 72 feet cube in my abstract (or any other number of feet would do)—deduct ⅛ thus:—

72 cube.
8 being ⅛th.

64 feet reduced work in 1½ brick.

The same result is produced by multiplying by 8 and dividing by 9, thus:—

72
8

9)576

64 feet reduced as before.

Both these methods, I am convinced, are correct; but the first one is the shortest and best in my opinion, having made use of it since I have been in practice; but the practice of multiplying by 6 and dividing by 7 must be incorrect, and the sooner it is done away with the better.

In reducing 9-inch work to 1½ brick, some persons multiply by 2 and divide by 3, which is correct; but it causes so many figures. The same result is produced by taking away ⅓ from the total, thus:—

Suppose I have 39 feet

13

26 reduced.

39 feet
2

3)78

26 feet as before.

If you think this letter worthy of insertion, you are welcome to it, and any further information that I can give your correspondent is at his service. Perhaps your correspondent will let another letter appear in your journal, stating whether he has got his required information. I do not at all understand about the allowance of 10 feet per rod; I have never made any allowance, and do not intend.

I am, Sir, yours, &c.

A SURVEYOR AND SUBSCRIBER.

London, Dec. 4.

SIR,—Observing in your valuable paper of Dec. 2, "Archemides'" application for a copy of Nicholson's "Carpenter's Guide," I would be most happy to supply him with a copy of the "Practical Builder," which contains guides to all the different trades connected with building, by that author. I happen to have two copies, one with the builders' price-book, both in good condition, and half bound in calf, which I would be willing to give at half price, either in money or other architectural or scientific books. I think they cost before binding about 3*l.* 12*s.*, but on application to Kelly, London, the publisher, you may obtain the price.

I have also a copy of the "Carpenters' or Builders' Guide" (by A. Hay, of this place, a friend of Nicholson), folio size, all plates of original drawings, with small book of description, cost 3*l.*, for half price as before.

Allow me to suggest the presentation of a nice lithograph of some public building, providing you could afford it.

May I ask if you intend publishing an index, or if you intend THE BUILDER to be bound. Your answer will oblige, Sir, your obedient servant.

16, Cochran-street, Glasgow. A. W.

[We have no doubt of satisfying all the reasonable desires of our readers with our best efforts, and improved plates. An index will be given, and THE BUILDER bound up.—ED.]

SIR,—Upon taking up your BUILDER of this day, my eye caught the letter containing the puzzle of Mr. Newnham's, concerning the panel-stuff of a door being too narrow, and the workman having no stuff independent of the said panels to increase their width. At first sight, I thought it would be hardly possible for a carpenter, surrounded as he generally is with edgings (which accumulate at times faster than they can be disposed of), to trouble himself with solving the mystery; but, upon second consideration, I remembered that a 2 foot 6 inch door (a very usual size) made out of 9 inch deal, requires 9½ panel, a slip must therefore be found or an eleven inch plank ripped at a waste of 1½ inch, unless some scheme is adopted. The following plan will be an answer to the puzzle:—Suppose the panel to be 1 inch thick, and the width required 9½, the plough groove in door ½, and the stuff given for panels 9 inch deal. Having prepared the piece-plough with a ½ iron in the centre of the stuff ¾ inch down, which will leave two ¼ tongues on each side, with a strong cutting gauge take off one of the slips from the face, and the panel will be rebated on one side, glue and brad the tongue so taken off on the opposite side, and the panel will be the width required.

I know not whether this may be the manner in which Mr. Newnham would effect the object, but the end is attained by its means; and, therefore, as you have courted in his letter the rough spun suggestions of those who will furnish them, should you think the above worthy insertion, you will please to let it appear, and I have the honour to be, Sir,

A WELL-WISHER OF THE BUILDER.

December 2nd, 1843.

SIR,—Seeing the question of church architecture continually agitated in the columns of your valuable paper, and the Gothic style particularly selected as the style for church architecture, and even termed "Christian architecture," I beg to ask from whence this appellation is derived, also to know in what style of architecture the first house dedicated to the worship of the true God was built?

I am yours, &c.,

A CONSTANT READER.

Scarboro', December 6th, 1843.

SIR,—Seeing in THE BUILDER such great encouragement for men in the shop to come forward and teach, I being one of the lucky squad, the un washed (as Linley termed himself), come forward on the opposite tack to be taught, if any of the three on the shew arch will be kind enough to explain to me the correct system to lay down the joint lines of the quoin heads on the elevation. I am aware that any other than a right angle from the bed line of the soffit will not radiate to the centre; neither is it a straight line, the case being evident, a twisted bed to section. A few words in explanation will greatly oblige a well-wisher to THE BUILDER. L.

SIR,—Will you or any of your numerous readers inform me of what the composition is made for washing Paris-plaster casts with, to give them the appearance of marble, or raw Italian alabaster?

If any one can give me this information, they will oblige a subscriber, and one who ventures to sign himself (although it has been said they have impudence for any thing),

A REGULAR YORKSHIREMAN.

Hull, December 2, 1843.

Miscellanea.

CITY IMPROVEMENTS.—The tardy improvements in New Farringdon-street, which is to form the leading line of communication from Holborn-bridge to Islington, have at last commenced, and a very handsome house, in the best style of street architecture, has just been completed at the Holborn terminus. Here there will be a crescent of handsome houses and shops, the effect of which, when completed, will be good from Farringdon-street. Scaffoldings are erected, and excavations have been made, for building six other houses in the new street. Nothing has yet been done in the pulling down any of the old buildings from West-street to Clerkenwell-green, which is to form the new line of street, although in no neighbourhood is the necessity for such improvement more apparent.—*Evening Paper.*

SOUND.—The difficulty of transmitting sounds to a great distance arises from the sound spreading and losing itself in the surrounding air; so that if we could confine it on one side, as along a wall—or two sides, as in a narrow street—or on all sides, as in a tube or pipe—we should be able to convey it to great distances. In the cast-iron water-pipe of Paris, which formed a continuous tube with only two bendings near its middle, the lowest whisper at one end was distinctly heard at the other, through a distance of 3,120 feet. Hence we see the operation of speaking-tubes which pass from one part of a building to another. The intensity of confined sounds is finely exhibited at Carisbrook Castle, in the Isle of Wight, where there is a well 210 feet deep, of twelve feet in diameter, and lined with smooth masonry. When a pin is dropped into it, the sound of its striking the surface of the water is distinctly heard.

A STRAIN AT A GNAT.—Mr. Hope, of Paris, tired of the bustle of the Chaussée d'Antin, and resolved to pass over to "the noble faubourg," sold, some time since, his fine mansion in the Rue Neuve des Mathurins, and purchased the hotel of the late Marshal, the Prince d'Eckmuhl (Davoust), in the Rue St. Dominique, Faubourg St. Germain, which he razed to the ground, and caused to be erected in its stead a princely edifice. In the course of a proceeding at law, before the Tribunal of the Seine (Paris), on Wednesday last, it appeared that already the shell of the new hotel of Mr. Hope had cost him the following sums:—

	F.	C.
To the gilder and decorator	153.420	7
To another gilder	94.803	3
To roofing, slaters' work, &c.	356.035	33
To the carpenter (gross work)	321.142	86
To sculptors	298.687	70
For bronzes	190.963	90
To stucco and plasterers' work	37.057	13
To carpenter for interior work	158.243	76
To gas-fitters	570	0
To smith's work, locks, bells, &c	300.700	79
To painting the ball-room	44.440	0
	1.936.088	47

This last item referred, however, only to the painting of the panels. It became necessary that a different, and perhaps inferior artist, should connect by fancy work the subjects represented upon them, and for that performance a bill was furnished to Mr. Hope for a sum of 9,000 francs, less by 1,500 francs, paid on account. To the balance, 7,500 francs, Mr. Hope objected, and tendered as payment in full 4,610 francs, being 2,890 francs less than the amount of the bill furnished. The artists refused to accept the sum, and brought their action (as it may be termed) for the full amount, which Mr. Hope defended. The Court decided that Mr. Hope was bound to pay the full sum claimed. Mr. Hope appealed. After hearing the celebrated advocate M. Chaix-d'Est-Ange for the appellant, the Court, on Wednesday last, suspended its judgment, in order that the architect who presided over all the works be heard in evidence. Thus, after paying 1.936.088 francs 47 centimes (77,443*l.* 11*s.* 2*d.* and one-tenth of a penny), Mr. Hope felt himself obliged, at an expense probably of twice the sum involved, to refuse payment of 2,890 francs (115*l.* 7*s.* 6*d.*!)

HADLEIGH BRIDGE.—The magistrates acting for this division of the county, in consequence of the dangerous state of the old bridge, in July last advertised for plans for the erection of a new one, and from those plans submitted to them selected the design of Mr. Hurwood, engineer, Ipswich. A new bridge has since been erected by the firm of Messrs. Bond, Turner, and Hurwood, of St. Peter's Foundry. On Saturday last the magistrates assembled to open it, and after a minute inspection, expressed their approbation, and congratulated the engineer upon the design and the manner in which the work has been executed.

ARTESIAN WELL.—The Artesian well at the Royal Hospital, Haslar, sunk by Mr. T. Docwra, manager of the large Artesian well now in progress for supplying Southampton with water, has resulted in producing a most abundant supply of water, which has been analyzed by order of the Board of Admiralty, and is found to be of the purest and softest quality. What is most surprising is, that the water rises through 125 feet of shingle and running sand, which is full of salt water, being affected by the tides. The trouble and difficulty in stopping the salt water out has been entirely overcome. The quantity of water that Mr. Docwra guaranteed to obtain was 12,960 gallons per day, but the actual quantity obtained from the spring, 156 feet deep, was 59,328 gallons per day. This quantity can be pumped every day without reducing the water in the well more than about 40 feet from the surface.

The force necessary to move a stone along the roughly-chiselled floor of its quarry is nearly two-thirds of its weight; to move it along a wooden floor, three-fifths; by wood upon wood, five-ninths; if the wooden surfaces are soaped, one-sixth. If rollers are used on the floor of the quarry, it requires one-thirty-second part of the weight; if they roll on wood, one-fortieth; and if they roll between wood, one-fiftieth of its weight. At each increase of knowledge, as well as on the contrivances of every new tool, human labour becomes abridged.—*Babbage.*

A fortnight ago a dreadful fire broke out at Wexin during a storm. In eighteen hours it destroyed four-fifths of the town; so that of the new houses built since the last fire only eight remain standing; and 1,400 persons are burnt out. The cathedral is saved. The insurances are to the amount of 300,000 dollars.

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